

## GEOMETRY

NAME \_\_\_\_\_

## ALGEBRA REVIEW

Solve the equation.

1.  $3r - (2r + 1) = 21$

2.  $14r + 81 = -r$

3.  $7(b - 3) = 8b + 2$

4.  $-\frac{1}{2}(16 - 2h) = 11$

5.  $\frac{3 + m}{2} = 5$

6.  $\frac{1}{2}9h = 94.5$

7.  $85 = \frac{1}{2}(226 - x)$

8.  $12 - 23c = 7(9 - c)$

9.  $4.7(2f - .5) = -6(1.6f - 8.3f)$

Write an equation in slope-intercept form of the line that passes through the given point and has the given slope.

10.  $(0, 1.6)$ ,  $m=0$

11.  $(3, 0)$ ,  $m=-4$

12.  $(.5, -1.5)$ ,  $m=2$

Write an equation in slope-intercept form of the line that passes through the given points.

13.  $(4, 2), (7, -4)$

14.  $(4, -9), (8, -9)$

15.  $(58, 20), (80, 108)$

Simplify the expression. The simplified expression should have no negative exponents.

16.  $2n^4(3n)^2$

17.  $c \bullet c^{-9}$

18.  $\frac{(-3)^5}{-3^5}$

19.  $c^6 \bullet \frac{1}{c^9}$

20.  $(\frac{r}{3s})^{-3}$

21.  $(3c^{-4}d^5) \bullet 12cd^{-4}$

Find all the square roots of the number or write “no square roots”. Check the result by squaring each root.

22. 64

23. -36

24.  $\frac{7}{100}$

Simplify the expression. Give the answer as a radical in simplified form.

25.  $\sqrt{16+16}$

26.  $\sqrt{54}$

27.  $\sqrt{10} \bullet \sqrt{15}$

28.  $\frac{\sqrt{48}}{\sqrt{6}}$

29.  $\frac{5}{\sqrt{20}}$

30.  $\frac{6}{\sqrt{2}}$

Solve the formula for the indicated variable.

31.  $C = 2\pi r$  (the formula for circumference of a circle). Solve for r.

32.  $A = bh$  (the formula for the area of a parallelogram). Solve for b.

Rewrite the equation so that y is a function of x. (Solve for y)

33.  $5x - y = 0$

34.  $2y + 6 = 3 - x$